

## What is Claimed is:

- [c1] A method for locating process sensitive areas of a design, comprising the steps of:
- scanning a pre-release or released device for shape configuration data for process sensitive sites that cause productivity loss;
  - coding the shape configuration data such that it is recognizable to a design checker; and
  - using the design checker to identify target matches where such shape configuration data is present in the design.
- [c2] The method of claim 1 where the target matches are collected as shapes inserted into the design data.
- [c3] The method of claim 1 where the design checker has the capability to check for 3-D structures.
- [c4] The method of claim 2 also comprising the step of converting into a format usable by characterization, and metrology systems.
- [c5] The method of claim 1 where the using of the design checker to produce target matches is deployed automatically for new designs.
- [c6] The method of claim 2 also comprising the step of producing images of the locations where such shape configuration data is found.
- [c7] The method of claim 6 which also comprises the step of transfer the images and locations to a website configured so that the target matches can be visualized in usable forms.
- [c8] A physical design characterization system which comprises:
- a release environment which comprise physical design data files;
  - a queuing system that controls what physical design data files are released to a 3D design checker;
  - a design check library which contains physical design structures of process sensitive regions from previously released devices;
  - a 3D design checker connected to the design check library and a runtime

environment; and

a runtime environment which operates on the physical design data files using the 3D design check and produces target matches.

- [c9] The physical design characterization system of claim 8 wherein the target matches are comprised of vectors or shapes inserted into the physical design data files.
- [c10] The physical design characterization system of claim 9 which also comprises a graphics processing system which operates on the target matches.
- [c11] The physical design characterization system of claim 9 which also comprises a web interface connected to graphic processing system which communicates the output of the graphics processing system.
- [c12] The physical design characterization system of claim 10 wherein the graphics processing system collects and sorts the target matches by type.
- [c13] The physical design characterization system of claim 10 wherein the graphics processing system converts the target matches into views.
- [c14] The physical design characterization system of claim 10 wherein the graphics processing system convert the target matches into a format recognizable by analysis and processing equipment.
- [c15] The physical design characterization system of claim 8 wherein the website interface provides for series of graphical pages for each target match of a particular type of target.
- [c16] A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform the method steps for locating process sensitive areas of a design, the method steps comprising:  
loading into memory for released devices shape configuration data for process sensitive sites that cause productivity loss such data being coded such to be recognizable to a design checker;  
loading into memory physical design data for the design; and  
using the design checker to produce target matches at the locations

where such shape configuration data is present in the design.

- [c17] The program storage device of claim 16 where the target matches are collected in a database as shapes inserted into the design data.
- [c18] The program storage device of claim 16 where the design checker provides one with the ability to check for 3-D structures.
- [c19] The program storage device of claim 17 where the method of locating process sensitive areas also comprises the step of converting the target matches into a format useable by characterization and metrology systems.
- [c20] The program storage device of claim 17 where the method of locating process sensitive areas also comprises the step of converting 6. The method of claim 2 also comprising the step of converting the target matches into images of the locations where such shape configuration data is found.